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The Maryland Fruit Grower

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Edited by the Secretary, A. F. Vierheller, Extension Horticulturist
College Park, Maryland.

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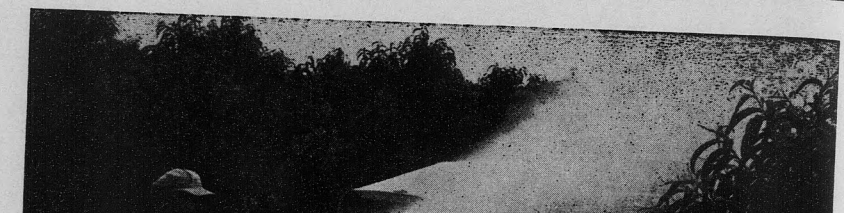
PEACH BORER CONTROL

Growers who have been caught by peach tree borer should get ready to treat their trees this fall. A short summary of the life history of the borer will show why fall treatment is best. The moths emerge from those pupa cases that we find around the base of the tree from about mid-July until mid-September. There is but one brood a year, so the emergence period for some of the moths may be even earlier than July. A single female may lay as many as 200 to 800 eggs, depositing them at the base of the tree trunk, or even higher, or on weeds or on the soil. The adult moths are clear-winged, much resembling wasps. The eggs hatch out in about 10 days, and the larvae begin boring into cracks in the bark at the base of the tree. They feed right on through winter, when weather is warm, and in the spring, they continue feeding until the worms become about an inch long. Growers know from experience what damage they do. It is easy to see that if the worms are controlled in the fall, they will not do much damage, and also, they are easier to kill, since they have not worked their way under the bark, as they will do if left over winter.

What control material to use is left to the growers' discretion. The old hand-worming method, using a knife and wire, is still good if the worker is careful not to do more damage than the borer might do. Then there is the para-dichloro-benzene crystal treatment that has given good results when properly used. This material becomes a gas if the soil is warm enough to volatilize the crystals (about 60° F. or above). Since the gas is heavier than air, it goes down, not up. This shows the great importance of removing mounds from trees, at least during May, so that the larvae working at ground level will be reached by the gas. Mounds are removed two weeks after treatment of young trees (1 to 3 years old). If mounds around old trees are left until egg-laying season, it simply means that the larvae will be working too high on the tree to be controlled by the crystal gas treatment. The use of para-dichloro-benzene dissolved in oil and sprayed on the tree trunk and around the tree base gives good control, if sufficient oil is used per tree, to deliver the full dosage of para-dichloro-benzene, (following manufacturers' directions). Then there is ethylene dichloride that caused considerable trouble to growers. This liquid is still being used by some growers, but they keep it stirred up while using, and apply it only when soil is dry, and then only to the soil around the trees base, and *not to the tree trunk.* Borer treatment is best done September 15 to 30.

CARE OF FARM TRUCKS

The Studebaker Corporation, South Bend 27, Indiana, has issued a fine booklet on "Care and Maintenance of Farm Truck" which every truck ower should have. Write R. G. Hudson, Manager, Truck Division of Studebaker Corporation, for free copy, sent postpaid.



This is a spray outfit used by a New Jersey grower. A gun is mounted on a swivel, carried on a small trailer. No figures are available on the effectiveness of this outfit, especially on taller trees. (Illustration by courtesy of Delaware Experiment Station).

OHIO INGENUITY

Ohio State Horticultural News-Letter, June 1943, reports that Mr. H. L. Mantle, Painesville, Ohio, has been working up a lot of used boxes and crates into boxes and field crates. He stated that maybe he wasn't saving much money considering the cost and the hauling of packages, and the labor in working over the packages, but he has a supply of containers that can be used in the orchard or the market (special labels have been made for the rebuilt containers for market). It is possible that we may have to begin using market containers over and over, so the following suggestions from Mr. Mantle's actual working operations may be of help or at least they may come in handy from time to time.

Mr. Mantle gives directions for working up the containers, as follows:

Reworking Western Apple Boxes. Western apple boxes measure 18" long, 11½" wide and 10½" deep inside and hold 2173.5 cubic inches. The newly approved box for the East by the War Production Board measures inside 17" long, 13" wide and 11" deep, and holds 2431 cubic inches By figuring, we find that if we increase the depth of the Western box by 1¼ inches, we will also have the exact cubic contents of the Eastern box of 2431 cubic inches. We first knock the bottoms off and find this is easily done by taking a small block of wood about 10 inches long and placing it inside the box next to an end, then taking one hand and holding the box above the bench, striking this block of wood one or two strong blows with the hammer and off comes the entire end of the bottom without damage. The same process is repeated on the other end, then we nail four strips of wood on the ends, one on each end of the bottom of the box and on each end of the top of the box. These strips of wood are sawed ⅝ inches thick

and the same length as the end of the box, which is 11½" We usually rip them out of box ends with a power saw. After nailing these strips on top and bottom of the ends, we nail on the bottom. This gives a strong box with the same cubic contents as the Eastern Box. We have been advised by the WPB representative in Ohio that since this is a salvage proposition by the farmer, it will be heartily approved by the WPB. We believe it will be acceptable to the trade.

Reworking Tomato Lugs Quite a number of tomatoes are shipped north in what are known as tomato lugs. These lugs usually measure about 16 inches long, 13½ inches wide and 5¾ inches deep. By joining two of them we get an apple box that measures 16 inches long, 13½ inches wide and 11½ inches deep, which is practically the same as has been used in Western New York and in Ohio for a number of years. We join these two boxes together by knocking the bottom out of one, taking the extra cleats off the top of each box, and then placing the one with the bottom knocked out, on top of the other one and nailing small strips of wood vertically on the outside of each of the four corners.

Reworking the California Orange Box. We also use orange boxes to make over into satisfactory apple boxes. The California orange box can be easily made into an apple box to the exact dimensions as above described that we can make out of the Western apple boxes. The heads of the California box are 11½" square. By nailing a strip ¼ inch thick on either top or bottom of the end, we have the same size head that we have on the Western box after we have increased its depth by 1¼ inches. We, of course, have to tear these boxes apart and saw the sides and bottoms to the right length to nail back on and make a box 18 inches long inside. In tearing the boxes apart we usually take a bar of iron and strike across an entire side near the heads so that we got the side off with less damage than if we used a hammer.

Reworking the Florida Orange Box. The Florida orange box, which is the one with the built-up head with the sawed framework and veneered panel, has heads that measure 12 x 12 inches. We find that if we use these heads and nail the sides and bottoms back on to make the inside measure about 16¾ inches long, we will have practically the same capacity as the Eastern box. Instead of tearing these boxes entirely apart, we usually loosen the sides with a bar, from the middle partition then drive them back and pull the nails, then loosen the bottom by striking a block of wood across the entire bottom a heavy blow with a hammer and then drive it back and pull the nails. We then have a box made from a Western apple box, turned on its side that just fits into this orange box. This Western apple box is cut down until the outside measurements of the top and bottom and one side are 16¾ inches long. We place this box or form inside one end of the Florida orange box after the middle partition is taken out. We then place this box or form inside one end of the Florida orange box after the middle partition is taken out. We then place the middle partition or the end from another box close across one end of this inside box and nail it fast all around. Then with a hand saw we saw off the parts of the box protruding beyond this inside placed end. That gives the finished box, very easily done.

Reworking Lettuce Crates into Apple Field Crates. Lettuce crates have heads that are about 17½" wide and usually from 13 to 14 inches high with side and bottom slats that are 24½ inches long. This makes a crate too large and too unwieldy for use in connection with apples. We, therefore, take the sides and bottoms off and nail some extra strips on the ends to make the ends tight. We then saw the bottom and top strips exactly 17 inches long and nail enough of them back on to make a tight bottom and reasonably tight sides. This makes us a crate that holds about 1¼ bushels of fruit or about 50 pounds. The crate is light in weight and is so balanced that it is nice to handle. The finished crates weigh about 8 pounds each and will nest three together—that is, one crate inside two others. The 10,000 field crates that we are now using are all made from Western lettuce crates."

One Old Maid—"Which would you prefer in a man; brains, wealth or appearance?"

The Other One—"Appearance, and the sooner, the better."

Peach Borer Control? Read the Ads.

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APPLE SYRUP

Much has been written about apple syrup or "apple honey". It is simply fresh apple juice, treated with lime and heated to precipitate the pectin, then filtered and treated with acid to lighten the color and take away any alkaline flavor. The juice is then concentrated under a vacuum, until it becomes a syrup of 75% soluble solids. The syrup is clear, amber-colored, and ⅓ sweeter than cane syrup of the same density, but otherwise tasteless. One hundred pounds of apples makes about a gallon of syrup, weighing about 11½ pounds. The 1942 ceiling price of 16 cents a pound (about $1.84 per gallon) was removed, late last season, to allow processors to buy higher grade apples to fill the demands for syrup. It has many uses, both in food and industry, such as a dampener or softener for rope, and for cellophane, leather, tobacco, paper, textiles, and cork, toothpaste, etc., and also in baking, ice cream manufacture and other uses. Since the Food and Drugs Administration allows no wormy apples to go into juice cider or vinegar manufacture, there is a fine line to be drawn between the kinds of apples that may go into either apple syrup made into food products, or for industrial uses. National Apple Institute is now trying to get a ruling allowing very low grade apples to go into syrup for industrial uses only. There is hope that much more syrup may be made by using the facilities of milk drying plants and molasses manufacturers, equipped with vacuum pans. About four million bushels of apples that might otherwise be wasted may be so utilized, and right now we need every substitute for glycerine that can be found.

PRESERVING FRUITS FOR OVERSEAS USE

In a recent publication of Fruit Program Committee, Extension Service, Massachusetts State College, it was stated that Lend-Lease shipments of fruits to England were preserved by sulfur dioxide treatment. The British Government requested it, so instead of canning the fruits, they were simply washed, and dumped into wooden barrels, with a 2% sulfur dioxide solution, then sealed and started on the way. Last year, strawberries, peaches, raspberries, citrus pulp and dewberries were shipped in this manner—a total of 250,000 barrels having already been shipped. Possibly cherries will be added this year. These fruits will go into jams, preserves, pies and ice cream. Before use the fruits are removed from the barrel, boiled vigorously for 45 minutes to drive off the sulfur and remove the bitter taste. The treatment removes most of the color from the fruits, but upon boiling, the color comes back and the fruit looks good. And there's a big saving of tin too, where canning of these fruits is not essential.

NEW BULLETINS

Propagation by Grafting and Budding. Circular 241, Sept. 1942. University of Missouri Agricultural Experiment Station, Columbia, Mo.

Farm Refrigeration for Apples. Bulletin 516, June 1942. Cornell University Extension Service, Ithaca, N. Y.

Harvest Spray? Read the Ads.

TIMING

IS THE SECRET OF SUCCESS IN STOPPING PRE-HARVEST DROP!

By following the Fruitone timing schedule you can now get accurate and maximum results in stopping pre-harvest drop of apples.

This schedule shows the length of time between full bloom and maturity of most varieties of commercial apples. Get your copy of this schedule today from your dealer or service man.

Never before has it been so important to grow every apple to full size and color. Use Fruitone to keep your apples on the tree.

If you prefer dusting, you can get DUST FRUITONE that gives the same effective control of pre-harvest drop.

FRUITONE for spraying packed in 12 lb. cases.

DUST FRUITONE for dust application, packed in 50 lb. bags.

CALIFORNIA SPRAY-CHEMICAL CORPORATION

Elizabeth, New Jersey

FRUITONE

REG. U. S. PAT. OFF.

THE HORMONE SPRAY OR DUST

AMMONIUM NITRATE FERTILIZER

Tennessee Valley Authority is making up large amounts of ammonium nitrate fertilizer that will ease up the shortage of nitrogen fertilizers. The material carries about 33% of nitrogen, and being about twice as strong as nitrate of soda, only half the usual amount in tonnage will be necessary in orchards. The material does not keep well in handling condition and should not be ordered too long ahead of time of use, and if stored, it should be kept cool and dry. The material is an explosive if detonated, so should be handled and stored with reasonable consideration of fire hazards. This should not frighten growers, as nitrate of soda is also easy to burn if care in use is not observed. The above remarks were condensed from an article in "Illinois Horticulture", D. S. Brown, University of Illinois.

FRUIT PACKAGES

With the many warnings to buy our baskets and boxes, growers have been wondering why such shortage in package supplies exists. From various sources, it is found that there is a shortage of labor in the timber woods. Also, some of the veneer mills have turned to war contracts working with larger lumber for crating military supplies. In some parts of the Middle West, floods hampered the logging work in the lowland timber tracts. There is also a labor shortage in the lumber mills, so it all adds up to a lot of difficulty in making up fruit and vegetable packages. The situation is not believed to be improving, so again, the word goes out to get packages as soon as possible, either new or used. Growers should plan to lay in the 1944 supply of baskets and boxes, as soon as possible after harvest season is over. A lot of comparative figures have been published in connection with the war effort, so a few more may be of interest. For instance, 1000 salvaged apple boxes contain enough wood to crate an average-size airplane for overseas shipment. The metal in 60 wire-bound citrus boxes will supply the nails and straps for crating a jeep. Five bushel baskets contain enough lumber to box 1500 rounds of machine-gun ammunition. Figures like these put a new importance on package salvage.

TRANSPLANTING OLD TREES

Practically every fruit grower agrees that moving of trees beyond 2 years of age is a risky thing. Ohio Bimonthly Bulletin, March-April, 1934, published by Ohio Agricultural Experiment Station confirms the belief that apple trees have a limit of endurance when moved after they have become established. Some Stayman trees, set in spring of 1916 as one-year-old trees, were moved in the spring of 1920. A circular trench about 3 feet in diameter was dug around each tree, and as much soil as possible was moved with the tree. The new holes were dug just before the trees were moved, and they were immediately set and well planted. The tops of the trees were pruned "considerably". In an adjacent orchard some Stayman trees had been planted in 1916, and the total average yields of these trees were compared from 1916 through the 1941 crop. Also, the total average yields of some other Stayman trees set in 1922 were included for comparison.

The trees set in 1916 and *not moved* produced an average total of 143.6

SUPPLEMENT TO AUGUST, 1943, MARYLAND FRUIT GROWER

The following items are adapted from National Apple Institute Bulletin No. 117. July 29, 1943:

NO APPLES WILL BE AUTHORIZED FOR ALCOHOLIC BEVERAGES for sale, according to War Food Administration F.D.O. 69, effective July 28, 1943. Scarcity of apples for food is the reason. A County U.S.D.A. War Board has power to rule whether or not any apples are unfit for human consumption, or may be salvaged by diverting into alcoholic products, or that no available market exists for such fruit for human consumption.

VINEGAR STOCKS ARE BELOW NORMAL and Maximum Price Order 428 has set ceiling prices on vinegar as follows: (f. o. b. factory)

	60 Grain	50-60 grain	40-50 grain
Tank car or tank truck lots - per gal.	$ 0.16	- -	- -
Barrels, per gal. Cooperage included	- -	$ 0.19½	$ 0.17
Half-Barrels per gal., Cooperage included	- -	0.22½	0.20
Gallons, per dozen	- -	3.80	3.60
Half-gallons per dozen	- -	2.20	2.10
Quarts, per dozen	- -	1.10	1.05
Pints, per dozen	- -	0.70	0.67½

Growers need not withhold the 20% tax from agricultural labor payrolls. Internal Revenue Code, Section 1426 (h) states: "This term 'agricultural labor' includes all services performed (1) On a farm, in the employ of any person in connection with cultivating the soil, or in connection with raising or harvesting any agricultural or horticultural commodity ..... " (2) In the employ of the owner or tenant, or other operator of a farm in connection with the operation, management, conservation, improvement, or maintenance of such farm and its tools and equipment...." (3) In handling, planting, drying, packing, packaging, processing, freezing, grading, sorting, or delivering to storage or to market or to a carrier for transportation to market, any agricultural or horticultural commodity; but only if such service is performed as an incident to ordinary farming operations or, in case of fruits and vegetables, as an incident to the preparation of such fruits or vegetables for market. The provisions of this paragraph shall not be deemed to be applicable with respect to service performed in connection with commercial canning or commercial freezing....."

CEILING PRICES ON USED FRUIT AND VEGETABLE CONTAINERS were placed in effect July 26 under M.P.R. 434 Office of Price Administration. These prices are f.o.b. and placed at 3 levels - Emptier, Accumulator and Dealer. Dealer must have an O.P.A. license. It does not apply to farmers' cooperative who collect for and sell to their members, nor does it apply in States of Arizona, Utah, Nevada, California, Oregon, or Washington. The seller delivering in his own truck may add actual transportation costs, such costs not exceeding 80% of common carrier charges for the same

shipment. Apple and peach growers will be interested in the following:

Container Type	EMPTIER Unselected and unreconditioned (cents)	ACCUMULATOR Unselected and unreconditioned (cents)	Dealer Selected and/or reconditioned (cents)
1 bu. export tubs (solid bottom) crown or rim covers	8	11	17
1 bu. 3-hoop, bent bottom or improved baskets with covers.	7	10	16
1 bu. 2-hoop, round bottom baskets with flat or rimless covers	5	8	13
1 bu. to 1-1/5 bu. standard apple boxes - - no covers	7	11	17
Corrugated or solid fiber apple box	3	7	12
1 bu. New England market boxes - no covers	7	10	16
All covers for above crates	1	1½	2
All single slats for above crates	½	½	½
# 1 bu. baskets, unassorted - no covers	6½		
# All basket and hamper covers	2½		
# All nail type crates, no covers	9		
# Covers for above crates	1½		

Note - These prices are for unselected and unreconditioned containers sold by the Army and Navy.

A DOW GROWTH CONTROL
for larger, finer fruit

APP-L-SET

IT HOLDS THEM LONGER ON THE TREES

App-L-Set is a sound investment for growers of both apples and pears. It pays you real dividends because it is an effective growth control that assures you a crop of larger, finer fruit.

App-L-Set, developed by Dow, contains the plant growth substance, Alpha Naphthyl Acetic Acid, with suitable wetting agent. Spray App-L-Set on your trees and it will

- **Check pre-harvest drop and reduce loss from wind.**
- **Practically eliminate "spot picking."**
- **Lengthen harvest period and picking time.**
- **Ease labor problems.**

One thorough spraying is effective for nine or ten days and should be sufficient for most varieties of fruit. Consult your dealer about App-L-Set and the complete line of dependable Dow insecticides and fungicides.

THE DOW CHEMICAL COMPANY, MIDLAND, MICHIGAN
New York St. Louis Chicago

APP-L-SET DOW

There's A Dow Product for Practically Every Spraying and Dusting Need

bushels. Trees set in 1916 and *moved* in 1920 produced an average of 85. bushels. Trees set in 1922 produced an average total of 80.1 bushels includ ing the 1941 crop. While the transplanted trees were vigorous and healthy they were smaller in size. Records of the average total yield per tre 1938-1941 inclusive, showed: transplanted tree, 28.6 bushels; permanen tree, 48.8 bushels; tree planted 1922, 30.9 bushels. In summary, the yield of the transplanted trees moved 4 years after planting, yielded a little les than trees set 2 years after these trees were transplanted. While this wor concerns only one variety, it seems to show that considering costs involved it would be better to purchase new nursery stock than to attempt to move trees already established.

ACCIDENT LIABILITY

"Rural New Yorker" magazine reports that following several accidents on New York farms in which farmers were sued for damages, the farmers tried to get a State insurance plan at reasonable cost. They failed, but now several state insurance companies have set up a liability plan with a minimum annual premium of $23.00. The rates are based on farm payroll, acreage, etc., and the policies are written only in connection with Owners', Landlords' and Tenants' Liability Insurance, covering general liability of the farmer in connection with any farm accidents or property damage (to property other than the farmer's) resulting from accident. There is little question but that farmers should have protection in case of accidents. The facts and figures given above are for New York State only, but any growers interested in farm liability should contact their insurance agents for rates and information.

HERE AND THERE

Look over the ads for harvest spray material. Remember that the results may not always be due to the material, but to the proper use of the material. Follow the directions.

Many growers have been using old passenger autos, stripped down to a flat bed and used for all sorts of general light hauling work in the orchard. If a wooden rack is built over the front fenders on each side of the hood, it is possible to haul about 10 more crates of fruit per trip to the packing house. The racks need not interfere with getting to the motor if necessary.

Peach growers unfortunate enough to have terrapin scale on peach trees will find considerable sooty black on the peaches on affected parts of the trees. Also there will be small scales on the new wood. These are the females that will become larger and overwinter on the trees and from which next year's crop of scale will develop. A 5% oil spray applied in dormant season will control this pest or at least will keep it in check. Spray thoroughly.

Japanese beetle is spreading and has caused growers much worry this year. Sprays such as lime (20 lbs. per 100 gals. water) and 4% rotonone (4 lbs. per 100 gals. water) are good repellants or partial controls. Write E. N. Cory, Entomology Department, University of Maryland, College Park, if interested in obtaining rotenone for next year's control program.

HERE'S HOW I GET BIG EXTRA MONEY BY USING STAFAST!*

"...Before picking starts, Stafast goes on my trees. I know a Stafast application means fruit of better color and size...means more good food for Victory."

READ What Stafast Does!

Stafast is a proven hormone spray that holds your apple or pear crop on the trees longer and gives higher yields of better grades of fruit. Controls premature dropping... spreads out the picking season... gives your fruit more days of bright sunshine, more cool nights and more rain to deepen color and increase size... giving you *more money for your crop!*

1. Gives higher yields of premium grades of fruit.
2. Greatly reduces windfall loss.
3. Proved and *approved* by orchardists everywhere.

And if Nicotine Sulfate is called for in your late summer sprays—Use ORCHARD* BRAND!

...You'll find that there is *nothing* better than Orchard Brand—because of its *uniform* spray efficiency, and its consistent high strength. Contains 40% Nicotine (expressed as alkaloid).

* Reg. U. S. Pat. Off.

GENERAL CHEMICAL COMPANY
40 RECTOR STREET, NEW YORK, N. Y.

Technical Offices: Atlanta • Baltimore • Boston • Buffalo • Charlotte (N. C.) Chicago • Cleveland • Denver • Detroit • Houston • Kalamazoo Kansas City • Milwaukee • Minneapolis • New York • Philadelphia Pittsburgh • Providence (R. I.) • St. Louis • Utica (N. Y.)
Pacific Coast Technical Offices: San Francisco • Los Angeles
Pacific Northwest Technical Offices: Wenatchee and Yakima (Wash.)
In Canada: The Nichols Chemical Co., Ltd. • Montreal • Toronto • Vancouver

A FRUIT JUICE FILTER

Several years ago, details were given Maryland growers regarding the construction and use of a muslin tube filter for clarifying cider. The apparatus was designed by Hickok and Marshall at Michigan Agricultural Experiment Station. It consists of a wooden barrel with one end removed, and the barrel set up on a platform at least 5 feet above the floor. The flow of cider through the filter will be increased if the barrel is set higher, but 5 to 10 feet is sufficient. In the side of the barrel near the bottom, a common water faucet is placed, and a piece of garden hose is attached to the faucet. The filter is simply a tube of unbleached muslin, sewed so that the inside diameter is about 3 inches. A larger tube is not good, as it cannot support the filter cake. If the filter cake cracks, it allows cloudy cider to get through. The tube is a yard long. In making the tube, leave both ends open to facilitate cleaning. The filter tube rests in a V-shaped wooden through, open at one end. A piece of copper window screen is nailed across the trough, its entire length, bowing the screen down into the trough so that the filter tube will be cradled in it, yet will clear the bottom of the trough to allow the juice to pass from the tube, through the screen and down the trough.

The procedure in filtering the cider is as follows: Into the fresh apple juice an enzyme called Pectinol (manufactured by Rohm & Haas Co., Philadelphia, Pa.) is placed. The material is usually mixed with water, and later strained and the liquid placed in the juice. Twelve ounces of Pectinol are used per fifty gallons of Juice. It is allowed to work for several hours and its action causes the pectin in the juice to become slightly jelly-like. The juice is then filtered through several thicknesses of cloth to remove the pectin. It might be stated that several growers have made a short-cut, and are not using the Pectinol, but are going directly into the use of the filter-aid, which is usually the second step in the filtering process.

The filter-aid is an infusorial earth of great density. It is handled by Johns-Manville Co., Cleveland, Ohio (branch office in Baltimore), under the name of Super-cell Hyflo. It is mixed directly with the apple juice, usually at the rate of 1 pound to 30 gallons of juice, although this may vary with ripeness of fruit, etc.

Now we are ready to filter the juice. Tie the filter tube to the end of the hose, and tie the other end of the tube tightly with a cord. Lay the tube on the screen in the trough. Now fill the barrel with juice and mix in the Hyflo, stirring the juice. Then open the faucet at the bottom of the barrel allowing the juice to flow to the filter tube. The first 2 gallons will come out cloudy until there is enough Hyflo in the tube to build up a filter case. Pour this juice back into the barrel. Continue running the juice through the filter until it shows signs of becoming a little cloudy. Then shut off the faucet, remove the filter tube and clean it, and replace it, repeating the procedure as outlined above. Usually a filter will run about 30 gallons before it becomes useless. Be careful during the filtering that the filter tube is not moved, as it may break the filter cake, and allow juice to come through in cloudy condition.

Under good conditions, about a gallon of filtered cider per minute may be expected, although this will vary with type of juice, temperature, etc.

Growers interested in this small filter may write A. F. Vierheller for complete directions.

THE APPLE CROP

According to the Appalachian Apple Service, Bulletin 77, the apple crop for 1943 is estimated as 75% of the 1942 crop or a yield of about 100 million bushels. The Government wants about 45 million bushels for processed foods, such as dried, canned, vinegar, concentrate, quick frozen, and butter; also about 10 million bushels of packed apples for the armed forces. That leaves the civilian supply at 55 million bushels. Last year they had 70 million bushels. The Appalachian 4-State area has over one-fourth of the nation's processing capacity, and usually the processing stock is furnished by the growers in this area. Assuming that this tonnage must come from this area, it would take about 12 million bushels of the 4-State crop of 16½ million bushels, for processing needs alone. Some deep thinking will be needed to solve the problem. It concerns canner prices, use of lower grades for processing, possible shipment of canner grade apples into the territory, or other ways yet to be devised. Ceiling prices seem to be dormant, and may not be used unless prices get clear out of control. Very active work is being done by growers organizations and the trade is working out these problems with Government officials.

PEACH PRUNI DISEASE

This season several peach orchards have shown rather severe infections of Bacterium pruni or pruni disease. This disease has been with us for quite a few years. It usually causes cankers on the wood, and infects the leaves causing black spots, and later shot-hole in the leaves. This season the secondary infection has appeared on peaches nearly ripe. I caused rather rough, scaly brown spots, disfiguring the fruits considerably. It has been found in widely scattered orchards. It is nothing to cause panic among growers. The control methods consists of keeping the trees in healthy growing condition. Possibly the dry weather has caused some of the trouble by devitalizing the trees. The other control is by spraying with zinc sulfate and lime. Dr. John Roberts, U. S. Bureau of Plant Industry developed the spray, and it has been used by Maryland growers for years as a safener for lead arsenate. However, if pruni is discovered, the zinc sulfate is increased from 4 pounds (crystal form) or 2 pounds (mono-hydrate form) to 8 pounds (crystal form) or 5 pounds (mono-hydrate form) per 100 gallons of spray. Lime is always used with the zinc sulfate (See Mr. Spray Calendar). It is too late to do anything about it now, but this information may be of help to growers in identifying the disease if it has occurred in the orchard.

FRUIT JUICES

In these days of uncertainty regarding the supply of fruit juices, it is probable that the women folks will be interested in making up a supply of various juices, either fruit or vegetable. Circular No. 194, issued by New York Agricultural Experiment Station, Geneva, New York, contains some excellent ideas and illustrations regarding juice presses. It shows how to make a cider or juice press by use of a frame and a small hydraulic auto jack.

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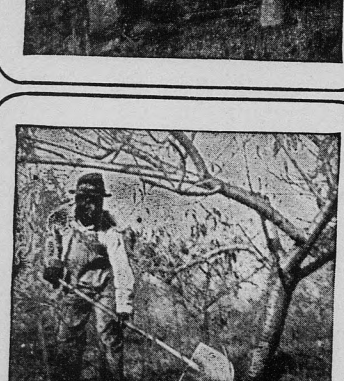

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The best time to do this is in the Fall after the crop is picked and before cold weather sets in. As it is not necessary to remove the mounds when using Para-Scalecide, a part of the material remains dormant in the soil to become acting in the Spring. If the Fall application is missed, successful application is also made in the Spring.

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